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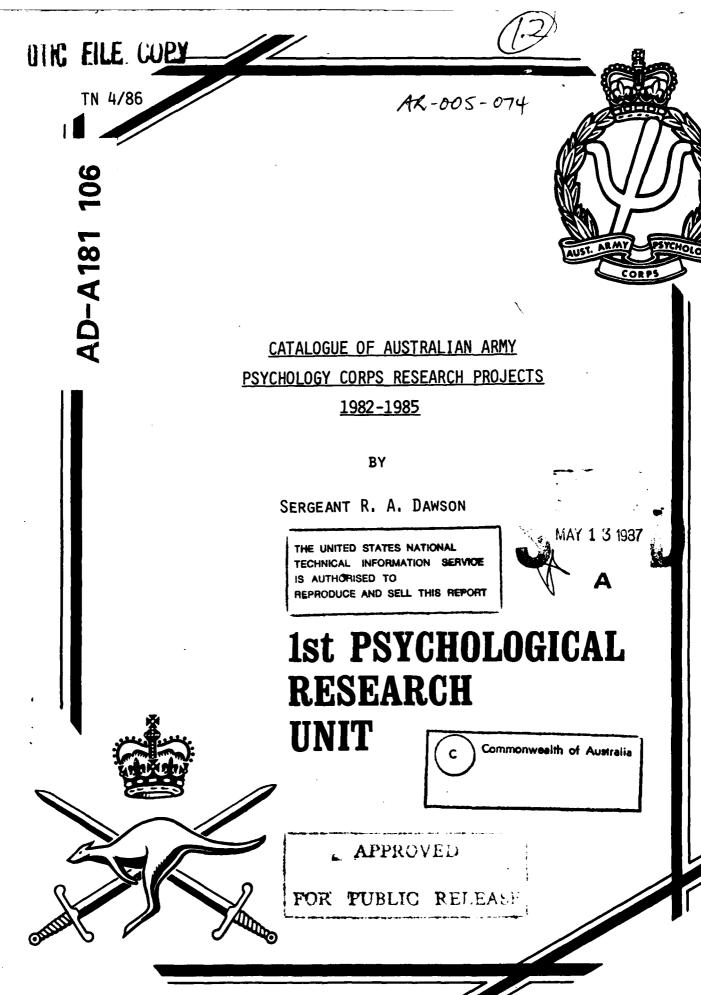
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MICROCOPY RESOLUTION TEST CHART
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# CATALOGUE OF AUSTRALIAN ARMY PSYCHOLOGY CORPS RESEARCH PROJECTS 1982-1985

by

Sergeant R.A. Dawson

February 1986

This Directorate of Psychology publication has been prepared by 1st Psychological Research Unit and is authorized for issue by DPSYCH-A.

LTCOL P.N. DRAKE-BROCKMAN

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Commanding Officer

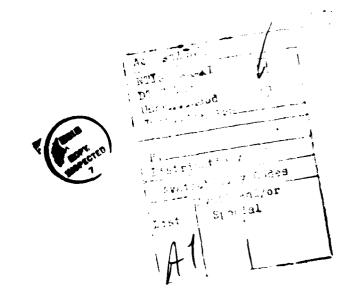
1st Psychological Research Unit

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Northbourne House

# Abstract

This catalogue of research conducted during 1982-85 is produced in accordance with the Operating Handbook for the Australian Army Psychology Corps 2D-3. It consists of all projects which were undertaken within the Corps which progressed to a stage where they were identifiable by a title. The catalogue summarises the returns of research submitted by AA Psych Corps Units/Appointments. Those projects which have been completed and resulted in the production of a report have been distributed on a scale determined by DPSYCH-A. Some reports were commissioned for/by a particular Unit or Appointment and distribution has been limited. Requests for limited distribution reports should be directed to DPSYCH-A.



1. THE RELATIONSHIP OF PSYCHOMETRIC MEASURES TO THE PERFORMANCE OF ABORIGINAL RECRUITS ON THE NORFORCE RECRUIT TRAINING COURSE (Research Note 1/82) January 1982.

11th Psychology Unit (Limited Distribution)

MAJ J.W. KELLEY

This research note looks at the relationship between the performance of Aboriginal recruits on an all-Aborigine course and the psychometric and biographical measures. The results indicate that psychological measures alone may not be good predictors of success for the level of training currently adopted at Kimbolton but that psychological procedures may be useful if there is a need to raise the standard.

2. THE RO3 (M) REVISITED - A PARTIAL COMPARISON OF TESTS RO3X AND RO3M (Research Note 2/82) February 1982.

Ist Psychological Research Unit (Limited Distribution)

## CAPT L.W. TOMLINSON

Research on the RO3 (M) is reviewed. Further statistical analysis is carried out on the data from Richardson's (1969) sample to examine further the degree of equivalence between tests RO3 (X) and RO3 (M) to determine whether the revised 1982 norms for the RO3 (X) can be applied to the RO3 (M). Equivalence for the the non-metric forms of the test is established and it is suggested that a metric form of both tests may still be statistically equivalent, though not in a retest situation.

3. LEARNING FROM PROJECT M - A PROPOSAL FOR A REVISED SYSTEM FOR RECRUIT SELECTION (Research Note 3/82)

1st Psychological Research Unit (Not Printed).

LTCOL M. ELEY

The aim of this paper is to apply knowledge gained from Project M to devise a more practicable selection system for male recruits which would be an improvement over previous systems.

4. RENORM 1982: RENORMING THE OCS TEST BATTERY (Research Note 4/82) 1st Psychological Research Unit (Not Printed)

MAJ L.W. TOMLINSON

Norms are calculated for the data from the 1978 OCS applicant population and comparisons are made with the norms from the 1976 OCS data. Differences are found between the two populations. These differences are discussed and it is recommended that the norms from the 1978 OCS data be introduced in 1983. It is recommended also that a programme of periodic renorming should be introduced so that change in applicant populations can be monitored, and norms from more recent populations will be available.

5. CATALOGUE OF AA PSYCH RESEARCH PROJECTS 1980-81 (Technical Note 1/82) April 1982. 1st Psychological Research Unit (Open distribution)

## WO1 T.A. THURBON

This catalogue of research conducted during 1980-81 is produced in accordance with the Operating Handbook for the Australian Army Psychology Corps 2D-3. It consists of all projects which were undertaken within the Corps which progressed to a stage where they were identifiable by a title.

6. ABSTRACTS OF REPORTED AUSTRALIAN MILITARY STUDIES ON MANPOWER ATTRACTION, RETENTION AND ATTRITION (Technical Note 2/82) February 1982. 1st Psychological Research Unit (Open Distribution)

## CAPT I.D. JOHNSTON

A collection of abstracts of research projects dealing with manpower attraction, retention and attrition in the Australian Armed Forces is presented. The report consists of three sections headed respectively, Manpower Attraction, Retention and Attrition, however because of the inter-relatedness of these areas many of the reports could conceivably be classified under more than one section. This has not been done. Rather it attempts to classify each report under the heading most suited to the bulk of the report content.

This report does not pretend to be a complete summary of all relevant research conducted. Rather it contains abstracts of those reports readily available through military channels. Reports previously listed in D.J Flores, ATTRITION - An Australian Annotated Bibliography, in most cases have not been included. Some of the reports are classified and as such are only available within Australia. They are marked as such. Other reports while not classified, have restricted distribution.

7. THE BEHAVIOUR OF THE ROL IN THE MALE GENERAL ENLISTMENT BATTERY (Research Note 1/83). 1st Psychological Research Unit (Limited Distribution).

To be issued as Research Note 4/86.

8. ISSUES RELATING TO THE EMPLOYMENT OF SERVICEWOMEN
(Research Note 2/83) March 1983. 1st Psychological Research Unit
(Limited Distribution)

# MAJ K.E. QUINN

These notes were presented in response to The Technical Cooperation Panel - Behavioural Sciences - Technical Panel 3 (TTCP-UTP3) request for research information on issues related to the increased employment of women in the Armed Services. The subject area of Technical Panel 3 is Military Manpower trends and, in each of the five member countries of TTCP, women have represented an actual or potential employment resource for the purpose of widening the manpower base.

Demographic and Defence policy changes have meant that member countries are increasingly experiencing a reduction in the recruitable male population.

This paper describes the Australian situation in relation to the employment of women in each of the Armed Services and comments on a number of issues raised in a NZ paper at the 1982 UTP3 meeting. The issues raised by NZ cover manpower and selection, training, operational efficiency and career advancement. In addition, this paper raises career management as an issue and research area for TTCP exchange.

9. THE UTILITY OF TEST SP21 (Research Note 3/83) July 1983. 1st Psychological Research Unit (Limited Distribution).

## MAJ L.W. TOMLINSON

Previous research on the SP21 - Checking, Sorting and Coding Test is summarised. Deficiencies are found in the previous research design such that the original norms appear to have been incorrect. Current data are compared with data from the original research and it is concluded that the test now appears to be redundant, and as such should be removed from the current test battery. If there is a need to retain it, new norms would be provided with a recommendation that they be introduced without delay.

10. TORRES STRAIT ISLANDERS' RECRUIT COURSE - RELATIONSHIP OF PSYCHOMETRIC DATA TO PERFORMANCE (Research Note 4/83)
August 1983. 11th Psychology Unit (Limited Distribution)

MAJ J.W. KELLEY

Psychometric tests and some limited biographical details are related to performance ratings for 110 Torres Strait Islanders who completed a basic recuit course in the Army Reserve (ARES). No prior selection occurred except for some basic medical criteria. Training was not to the same standard as that of the usual ARES recruit. Only a few failures could have been identified and, although promising, selection for such courses may not be economical.

11. THE LEARY INTERPERSONAL CHECKLIST. AN INVESTIGATION INTO ITS USE AS A SELECTION INSTRUMENT (Research Note 5/83)

November 1983. 1st Psychological Research Unit (Limited Distribution)

# CAPT I.B. RITCHIE

The Leary Interpersonal Checklist (ICL) is examined to assess its use as a selection tool. A factor analysis of the octant scores is conducted to examine the Checklist's theoretical underpinnings. Results suggest that the Checklist is not used as a selection tool by psychologists and that the Checklist's scores bare no relationship with a candidate's performance in the Selection Interview. The rotated varimax factor solution reveals that the Checklist has a stable theoretical structure, but, as the octant labels used by the test authors were never defined,

this stability lacks any real meaning. It is concluded that the ICL as a selection tool is useless.

12. THE STATE OF THE ART IN COMPUTERISED TESTING (Technical Note 1/83) August 1983. 1st Psychological Research Unit (Limited Distribution)

# CAPT G.R. WARDLAW

This Technical Note provides abstracts and summaries of literature relevant for design and implementation of computerised testing systems of the type being considered for introduction to AA Psych Corps. The first part of the Note summarises relevant reviews of research on computerised testing. The second part is a list of studies on computerised testing indicating the content of each study.

13. THE CONTRIBUTION OF PSYCHOLOGY TO PSYCHOLOGICAL OPERATIONS. (Technical Note 2/83) March 1983.

1st Psychological Research Unit (Limited Distribution)

## CAPT G.R. WARDLAW

This Technical Note, prepared as a resource document for DPSYCH-A, examines the potential contribution which psychology may make to psychological operations (PSYOPS) conducted by the Australian Army. The scope of PSYOPS is defined and the Note attempts to assess the degree to which psychological data are relevant in the planning, execution, and evaluation of PSYOPS. Recommendations are made concerning appropriate roles for AA Psych Corps in PSYOPS in future operations of the Australian Army.

14. THE SAMPLE SURVEY: A GUIDE FOR RESEARCHERS.
(Technical Note 3/83) September 1983. 1st Psychological Research Unit (Limited Distribution)

# CAPT N.J. REYNOLDS

This note details a method which can be used when conducting a sample survey. Suggestions and guidance are given on several different facets of survey research with particular emphasis on techniques of item writing and questionnaire construction.

The guide is designed for anyone who intends doing a sample survey and puts this method of research into a useful framework. It is meant to be used as an introduction to the area and, as such, should be read in conjunction with other texts in areas where greater depth is required.

15. AN EXAMINERS HANDBOOK OF BASIC RESEARCH DESIGN (Technical Note 4/83) November 1983. 1st Psychological Research Unit (Limited Distribution)

# CAPT I.B. RITCHIE

This Technical Note is designed to introduce students on the Subject Two for Warrant Officer Course to the subject of Research Design. The Note is intended to be used as an instructional device and as such contains definitions of research design terms, as well as some research design structures. It is not a definitive work on research design and encourages the student to read more widely into this broad topic.

16. <u>HUMAN BEHAVIOUR IN EMERGENCIES</u> (Technical Note 5/83)
December 1983. 1st Psychological Research Unit
(Open distribution)

## MAJ G.R. WARDLAW

This Technical Note, intended as a resource document for lecturers, summarizes the major research projects on the topic of human behaviour in emergencies. It examines assumptions made about such behaviour, especially those relating to the concept of 'panic', and discusses their impact on equipment design, planning for emergencies, procedural advice and rule-making.

Other topics discussed include the importance of behavioural roles and other factors as determinants of behaviour in emergencies, and the design of evacuation messages. The majority of the findings discussed relate to the research on behaviour in five emergencies.

17. AN INTRODUCTION TO COMPUTERIZED ADAPTIVE TESTING (Technical Note 6/83) May 1983. 1st Psychological Research Unit (Limited distribution)

## CAPT N.J. REYNOLDS

This paper is a derivation of a series of lectures given by the author in February/March 1983. It represents a summary and integration of the references cited which were used extensively as source documents.

The paper consists of two parts: The first part is a comparison of the theory underlying conventional and adaptive testing and a look at relative advantages/disadvantages of computerized adaptive and conventional testing. The second part presents a more detailed coverage of the theory behind computerized adaptive testing.

18. AN ANALYSIS OF THE EFFECTIVENESS OF THE SELECTION OF RADIO TRADESMEN IN THE AUSTRALIAN ARMY (Research Note 1/84)

January 1984. 1st Psychological Research Unit (Limited Distribution)

# CAPT I.B. RITCHIE

This report empirically analyses the selection system in order to assess whether the current selection standards are allowing too many poor/marginal students to attend the ATET (Radio) courses. Results suggests that certain variables assessed in the selection process differentiate course passes

from failures. It is argued though, that selection of only those individuals who have the qualities required to pass the courses would result in even fewer students attending the courses and that the current selection system is allowing entry to all those individuals who have, at least, the minimum potential to pass. It concludes that the current selection system is providing optimum numbers for training as radio tradesmen.

19. THE SELECTION INTERVIEW - A CRITICAL ANALYSIS AND REVIEW OF THE AA PSYCH CORPS SELECTION PROCEDURES
(Research Note 2/84) June 1984. 1st Psychological Research Unit (Awaiting Approval)

## CAPT I.B. RITCHIE

The selection interview is the most widely used selection instrument, yet statistics consistently report low predictive validities for this tool. The implications of this for the Australian Army Psychology Corps are discussed in this paper and it is concluded that it is no longer satisfactory to persist with the traditional approach to interviewing. Alternative approaches are discussed in this paper. It is argued that a biodata sheet be adapted as the major interview tool for the future as the introduction of this instrument will facilitate the development of an empirically based selection system.

20. THE OFFICER RESIGNATION QUESTIONNAIRE - A PRELIMINARY TREND ANALYSIS. (Research Note 3/84) May 1984.

Ist Psychological Research Unit (Not printed)

## CAPT I.B. RITCHIE

Frequency and cross-tabulation analyses are performed on results of the current Australian Army Officer Resignation Questionnaire. The purpose of these analyses is to provide the manpower planner with a number of descriptive statistics on officer resignation. No comprehensive interpretation is attempted, but from the results of the analysis it is concluded that reasons for resignation are diverse for all demographic groups and, therefore, it is inappropriate to search for one or a few underlying reasons. For this reason, it is recommended that the present questionnaire be altered to reflect this change in theoretical orientation. It is further recommended that trend analyses be conducted at regular intervals to keep in touch with the reasons for officer resignation.

21. BRIEF FOR DPSYCH-A - LAW REFORM COMMISSION PRIVACY
REPORT - IMPLICATIONS FOR AA PSYCH CORPS (Technical Note 1/84)
May 1984. 1sc Psychological Research Unit (Not Printed)

# MAJ G.R. WARDLAW

The purpose of this brief is to identify the privacy concerns and their suggested remedies contained in the report which will affect practice within AA Psych Corps.

22. A PLAN FOR THE TREATMENT OF CRISIS - INDUCED STRESS REACTION IN THE AUSTRALIAN ARMY (Technical Note 2/84) May 1984. 1st Psychological Research Unit (Limited Distribition)

## MAJ G.R. WARDLAW

The concept of crisis - induced stress reaction is introduced and its major manifestations are described. It is argued that some duties assigned in peace time to Army personnel may place them at risk of experiencing such reactions. The Australian Army should be prepared to deal with these situations by establishing adequate briefing, de-briefing and counselling services for personnel engaged on potentially traumatic duties. The note outlines the principles of treatment and makes recommendation for their incorporation into standard Army practice. Attention is drawn to the similarity between this form of stress reaction and battlefield stress.

23. THE ROLE OF THE AUSTRALIAN ARMY PSYCHOLOGIST IN THE SELECTION AND ALLOCATION OF SOLDIERS (Research Note 1/85)
June 1985. 1st Psychological Research Unit (Limited Distribution)

#### LTCOL P.N. DRAKE-BROCKMAN

This note identifies those factors which affect the circumstances of Male General enlistment for the Australian Army. It is claimed that the geographic dispersion of centres of population concentration; the chronic manpower shortages and the unwritten right of eligible individuals to bear Arms in defence of their nation has led to the adoption of a negative selection This philosophy is implemented by screening out unsuitable applicants in regionalized assessment centres by the use of pencil and paper testing. This method of testing is efficient in terms of time and flexibility and the introduction of Computerized Adaptive Testing (CAT) into the assessment centres is not warranted at this stage of its development. It is contended that CAT can be more appropriately applied in classification testing as a preliminary procedure in the Corps Allocation Process.

The concept of negative selection is extended into the allocation process and the method of its implementation is described.

24. RENORM OF TEST RO3(X) (Research Note 2/85)
November 1985. 1st Psychological Research Unit
(Limited Distribution)

# CAPT N.J. REYNOLDS

This report presents norms for the RO3X based on 1984 MGE data. The norms are created using a computer program developed at 1st Psychological Research Unit. As this represents the first use of the program for test norming, development of the program is reviewed.

25. A PRELIMINARY INVESTIGATION INTO STRESS IN AUSTRALIAN ANTARCTIC EXPEDITIONS (Research Report 1/85). 1st Psychological Research Unit (Open distribution)

LTCOL J.R. GODWIN

Self-report measures, administered within a broad before and after design, are used to investigate the experience of stress for the three samples (Before Departure, After Arrival and Previous Expeditioners) of Australian Antarctic expeditions. The results suggests the need for the further research on the relationship between performance, in both stress and arousal, in the Antarctic context.

